

Amendment to the Claims:

This listing of claims replaces all prior versions, and listings, of claims in the application:

1. (currently amended) A method, comprising:

setting a time interval between a first set of query messages to each of a plurality of routers to a number greater than a querier timeout period used by said plurality of routers, where said querier timeout period transitions each of said plurality of routers into a querier;

revealing presence of said each of said plurality of routers ~~by~~ sending a second set of query messages; and

sending membership report messages to said plurality of routers.

2. (original) The method of claim 1, wherein said querier timeout period is about 255 seconds.

3. (original) The method of claim 2, wherein said time interval is longer than 255 seconds.

4. (original) The method of claim 2, wherein said time interval is about 300 seconds.

5. (original) The method of claim 1, wherein said second set of query messages includes queries to determine which host groups have members on directly attached networks.

6. (original) The method of claim 1, wherein said report messages include a report from each host group.

7. (currently amended) The method of claim 6, wherein said sending membership report messages includes selecting a host from said each host group to send said report.

8. (original) The method of claim 7, wherein said selected host starts a randomly chosen report delay timer.

9. (original) The method of claim 8, wherein said randomly chosen report delay timer is reset to a new random value when another report is heard from same host group.

10. (currently amended) An IGMP switch system, comprising:
a plurality of routers to route Internet Protocol (IP) data, said plurality of routers also generating query messages;
a plurality of hosts to send and receive said IP data, said plurality of hosts also generating report messages; and

an IGMP pruning switch having a plurality of switch ports, said switch ports to provide interfacing of said plurality of hosts and routers, where said IGMP pruning switch provides query messages and report messages to be transferred in such states as to allow determination of presence of said plurality of routers and hosts;

wherein said pruning switch determines whether each switch port is a host or router port in a discovery state by setting a time interval between a set of query messages to a number greater than a querier time out period so that said each switch port reveals its state.

11. (original) The system of claim 10, wherein said pruning switch allows said plurality of hosts to issue report messages in a host state.

12. (original) The system of claim 10, wherein said pruning switch allows said plurality of routers to issue query messages in a router state.

13-15. (cancelled)

16. (currently amended) An apparatus comprising a machine-readable storage medium having executable instructions that enable the machine to perform operations comprising:

setting a time interval between a first set of query messages to a number greater than a querier timeout period used by ~~said~~ a plurality of routers, where said querier timeout period transitions each of said plurality of routers into a querier;

revealing presence of said each of said plurality of routers by ~~sending~~ receiving a second set of query messages from said plurality of routers; and

~~second-sending~~ membership report messages to said plurality of routers..

17. (original) The apparatus of claim 16, wherein said querier timeout period is about 255 seconds.

18. (new) A network switch configured to perform operations comprising:

revealing one or more non-querier multicast routers by holding back at least one query message and forcing the one or more non-querier multicast routers to assume a querier state; and

sending membership report messages to the revealed one or more non-querier multicast routers.

19. (new) The network switch of claim 18, wherein said membership report messages include a report from each of multiple host groups.

20. (new) The network switch of claim 19, wherein said sending membership report messages includes selecting a host from each of the multiple host groups to send the report.